

Copy Paste

Time limit: 2.0s **Memory limit:** 64M

A notepad program currently has a string S in it made up of lowercase letters in the english alphabet. The user performs Q actions. Each action, they can either copy a segment of the String into the clipboard or paste what's in the clipboard to the end of the string. After all Q actions, can you figure out what S is?

The specifications for each instruction is given below:

Command Format	Description
<code>C a b</code>	Copy the segment from a to b into the clipboard
<code>V</code>	Paste the string in the clipboard to the end of S

You can also assume that the segment a to b is in S . The first action is guaranteed to be a copy action.

Constraints

$$1 \leq |S| \leq 1000$$

$$1 \leq Q \leq 1000$$

$$1 \leq a \leq b \leq |S|$$

$$b - a \leq 1000$$

Input Specification

The first line contains the string S .

The second line contains the integer Q .

The next Q lines each describe an action.

Output Specification

One string, the final value of S after all of the actions

Sample Input

```
abcdef
```

```
5
```

```
C 1 4
```

```
V
```

```
V
```

```
C 8 9
```

```
V
```

Sample Output

```
abcdefabcdabcdbc
```

Sample Explanation

We start with `abcdef`. Copying 1 – 4, we have `abcd` in the clipboard. Pasting twice, we get `abcdefabcdabcd`. Copy 8 – 9, we have `bc` in the clipboard. Pasting again gives $S = \text{abcdefabcdabcdbc}$